

Dear Dr. Fredericks and members of the Climate Reality Project,

Thank you for your inquiry and your advocacy on behalf of climate sustainability.

As President Rob Manuel expressed in his response, DePaul shares the concerns raised related to climate change and has committed to creating a Climate Action Plan to explore ways we can further strengthen our efforts. University leadership looks forward to engaging and collaborating with internal and external partners to identify an optimal and realistic path to a decarbonized future. As we embark on this effort, allow me to explain in more detail about DePaul's current efforts to date.

Over the past two decades, DePaul has invested several hundred million dollars in physical plant infrastructure improvements, including complete and partial building rehabilitations, as well as targeted and ongoing efforts to replace inefficient windows and roofing systems, retrofit and upgrade lighting to LEDs, and to modernize and automate HVAC systems. As a result of these investments, DePaul has not increased overall CO₂ emissions related to its built environment from its self-established 2002 baseline, despite expanding the university's on-campus space footprint significantly through 2018.

The DePaul administration believes that maintaining baseline emissions through building infrastructure improvements and efficiency upgrades is only a starting point. We view the baseline as a foundation to be built upon, which is why DePaul set an aspirational goal years ago to offset up to 80% of its CO₂ emissions by 2040.

While immensely challenging, this goal remains feasible due to DePaul's ongoing investment in campus infrastructure improvements, coupled with DePaul's commitment to utilizing market resources to support its sustainability efforts.

DePaul currently offsets CO₂ emissions from approximately 44% of its electrical energy requirement by purchasing renewable energy certificates (RECs). DePaul has pre-purchased increasing quantities of RECs annually through 2026, when we will have 31,000, which will offset approximately 55% of DePaul's anticipated electricity consumption. We will strive to make further investments in RECs beyond 2026 as well.

Beyond its self-driven efforts, DePaul and nine other local colleges and universities joined Retrofit Chicago's Commercial Buildings Initiative (CBI) in 2014. You can read the press release that [announced this initiative here](#), which explains that these efforts grew out of the collaborative known as the Alliance to Retrofit Chicago Higher Education (ARCH), with funding from the Joyce Foundation, Chicago Community Trust, and Comer Foundation¹. Through ARCH, DePaul and other member schools share information and resources vital to helping each respective organization better meet its energy reduction and sustainability goals.

More recently, DePaul has also followed through on its previously documented commitment to participate in community solar initiatives to help foster the growth and proliferation of solar energy generation throughout Illinois.

In November 2023, DePaul became an anchor tenant in Illinois Shines, a state-administered incentive program to support the development of new solar projects (www.illinoisshines.com). The current contract covers all eligible electric accounts at DePaul's Lincoln Park Campus. As soon as the contract was in place, DePaul immediately engaged its Illinois Shines authorized broker to draft a proposal to expand the program toward providing community solar for its eligible Loop Campus accounts. Upon enrolling the Loop Campus accounts, over 90% of DePaul's on-campus power consumption will be attributable to community solar once the underlying projects are fully developed.

I'm also happy to address your inquiry about "energy-intensive buildings" on campus. First, I would like to provide more context about the period under review.

During the calendar year 2021, DePaul was fully open and operating under full COVID-19 mitigation and safety procedures that had been put into place the preceding year. These procedures included, among other things, operating HVAC systems with more restrictive air filters with higher MERV ratings, running building systems for a minimum of two additional hours before and after typical occupancy to help cleanse the air, increasing outside air intake percentages, boosting CFM supplied to interior spaces and adding UVC disinfection systems wherever possible. All of these necessary safety protocols translated to significant increases in utility consumption, while many traditional office buildings and other non-essential businesses were continuing to scale back-office hours and in-person interactions toward maintaining social distancing.

As the Chicago Energy Benchmarking tool offered no provision to account for the relative state of openness during the COVID-19 pandemic, facilities such as ours, which were both fully open and taking additional precautions, appear as outliers for using proportionally more utilities than those facilities that were decreasing operations and in-person activity at this time. Following the same logic, many large commercial buildings with vacated tenant spaces now appear favorably in the Benchmarking data not because they have improved operations or invested in better equipment but because utility consumption has tapered off due to lower building occupancy.

The discrepancies and inequities in reporting caused by the pandemic are a significant example of the limitations in the Chicago Building Energy Use Benchmarking Ordinance. While the ordinance data may serve as a valuable reference point, it is an imprecise instrument. It fails to provide a holistic understanding of how various types of facilities operate. It also fails to account for the relative energy intensity of the services housed in those facilities. While I can understand the initial concern about the six buildings classified as "high emissions intensity," I hope those concerns might be alleviated by providing a thorough explanation and additional context.

McGowan North

This building houses primarily research and instructional science laboratories. Around-the-clock ventilation, heating, and cooling demands in laboratory environments equate to higher-than-average emissions intensity. The Chicago Benchmarking tool does not consider or adjust for facility use cases.

This building is 1998 vintage, and while its equipment has been appropriately maintained and replaced as necessary, the only meaningful option to significantly reduce emissions intensity would be to cease operations and completely retrofit all labs and supporting mechanicals with more modern and efficient systems. Unfortunately, this is not currently possible as we do not have sufficient alternate laboratory space to offset even a temporary loss of the McGowan North facility. Moreover, even after completing such a retrofit exercise, the building will likely remain high in emissions intensity, particularly considering that our newest laboratory building, McGowan South, was also classified as such despite having achieved a LEED Gold rating.

While DePaul cannot readily re-engineer and retrofit the underlying mechanical systems at the McGowan North building, it has made investments where possible to help supplement its broader sustainability initiatives related to Scope 2 emissions. These include DePaul's purchase of Renewable Energy Credits and its recent contractual commitment to Community Solar. DePaul also installed a 92 kWdc rooftop solar array on McGowan North in 2018, the largest array that the rooftop could accommodate.

McGowan South

This building houses primarily research and instructional science laboratories. It is DePaul's newest and most modern science facility and was certified LEED Gold. McGowan South has state-of-the-art ventilation, heating, and cooling systems. The fact that it is classified as a high-emissions facility is not related to the infrastructure in place but rather to the use case of the building.

McGowan South is our flagship science facility, and the sheer volume of equipment in use and hours per day of run time is driving its utility consumption. Unfortunately, it is not possible to significantly decrease this facility's emissions intensity while maintaining its ability to fulfill the functions for which it was constructed.

During the summer of 2018, DePaul examined the feasibility of a rooftop solar array at McGowan South to help supplement its broader sustainability initiatives related to Scope 2 emissions. Unfortunately, it was determined that insufficient unobstructed rooftop area was available to support a viable rooftop array at this facility. While it will not change the energy-intensive nature of operating a laboratory facility, all power consumption for McGowan South is now included under DePaul's recently executed community solar agreement.

Student Center

This building is a mixed-use facility housing gathering spaces, student activity spaces, and staff offices. The Student Center also serves as the primary food service location on the Lincoln Park Campus. The higher-than-average emissions intensity can be accounted for when considering:

- This building contains two massive commercial kitchens and associated supporting spaces, including a large loading dock for food service deliveries.
- This building is the primary student gathering space on campus and operates up to eighteen hours daily.

Further complicating matters, the energy intensity reporting information of concern was for the calendar year 2021. As previously mentioned, DePaul was fully open but operating under significant COVID-19 safety protocols. Since this building contains food service operations, students were unmasking to consume meals. To help mitigate the potential for communal COVID-19 outbreaks, due to unmasked students sitting in proximity of each other, exhaust systems and additional HEPA air purification units were run around the clock, which only served to exacerbate the relative energy use intensity of the building during the designated reporting period.

DePaul has completed many projects to make the Student Center more energy-efficient and sustainable. The most recent example is the phased roofing replacement project, initiated during the summer of 2023, with additional phases to follow in subsequent years until completion. This project is a complete roof tear-off to facilitate the installation of additional roof deck insulation to meet current energy code standards.

The Student Center has also been studied for the possible future installation of rooftop solar arrays up to 295 kWdc. Upon completion of the roof replacement project, the financial viability of rooftop solar will be reevaluated.

Centennial Hall

This building is a mixed-use facility. During the 2021 reporting year, the building housed general staff offices, DePaul's Public Safety dispatch and operations offices, a two-story Whole Foods grocery store, over 100 students in apartments on floors 4-6, and a large cellular tower tenant on the rooftop. The higher-than-average emissions intensity can be accounted for when considering that all tenant consumption was factored into the reported utility use figures.

The Whole Foods operation consumed significant energy with its substantial walk-in coolers, freezers, and retail display refrigeration units. Likewise, cellular towers are considerable energy users by their very nature. While DePaul had an obligation to capture its tenant utility usage when disclosing benchmarking data, it could not dictate equipment standards or specifications in use by those tenants.

Looking toward the future, the Whole Foods space on the first and second floors of the building has since been vacated. With the departure of this tenant will come a significant decrease in overall building utility consumption. The university has already determined that it will not lease

these floors again. The space will be repurposed to support university operations. In redesigning the spaces, DePaul will take appropriate measures to ensure that the resulting new spaces are energy-efficient and support sustainable operations.

Holtzschneider Performance Center (HPC)

This building is DePaul's most recent new construction facility. The HPC opened in 2018 and has been certified LEED Gold. The fact that it is classified as a high-emissions facility is unrelated to its age or infrastructure. Instead, it is attributable to the use case of the building.

The HPC is our flagship music facility, and the sheer volume of equipment in use and hours per day of run time drive overall utility consumption. As an additional challenge, this building must maintain temperature and humidity levels within tight tolerances to protect irreplaceable musical instruments housed inside. It is not possible to significantly decrease this facility's emissions intensity while maintaining its ability to fulfill the functions for which it was constructed.

Further complicating matters, the energy intensity reporting information of concern was for the calendar year 2021. As previously mentioned, DePaul was fully open but operating under significant COVID-19 safety protocols. Given that the HPC contains the majority of music practice rooms and performance spaces on campus, students were unmasking to play their instruments. To help mitigate the potential for communal COVID-19 outbreaks due to unmasked students in the proximity of each other, additional protocols, which were more energy-intensive than those implemented in more general-use areas of the university, were put in place at the HPC. Specifically, exhaust systems and additional HEPA air purification units were run around the clock, which only exacerbated the relative energy use intensity of the building during the designated reporting period.

We have since reverted to pre-pandemic HVAC protocols and expect a proportional decrease in energy usage intensity at this facility.

DePaul Center

At over 701,000 square feet, the DePaul Center is DePaul's largest and most diverse mixed-use facility. During the 2021 reporting year, over 170,000 square feet of space was leased to the City of Chicago, 33,000 square feet was occupied by a Barnes and Noble bookstore, and over 10,000 square feet was occupied by other retail tenants, primarily restaurants. Moreover, the 11th floor of the building serves as DePaul's only cafeteria and food service location at the Loop Campus.

The scrutiny of DePaul Center is surprising as, despite its mixed-use and long daily operating hours, it received a score of 4 stars out of a possible 4 in the Chicago Benchmarking tool for 2021. Moreover, this facility is an excellent example of a nearly fully electrified building. There are no gas heating appliances in the building, and what little natural gas is burned is used only for kitchens supporting the cafeteria and some restaurant tenants.

DePaul has completed many projects to make the DePaul Center more energy-efficient and sustainable over the years. Some of the more notable recent projects include:

- In 2016, we retrofitted all main corridor light fixtures on the DePaul-occupied floors of the building to LEDs.
- In 2021, we completed a multi-year phased project to tear off and replace the entire roof system of the building to facilitate insulating the roof deck to current energy code standards.
- During fiscal year 2021, we embarked on a multi-year elevator modernization effort, which will result in the complete modernization of all building elevators by the end of calendar year 2024. This project includes replacing inefficient DC motors and drivers with ultra-efficient gearless AC motors.
- During fiscal year 2022, we right-sized the chillers serving lower levels in the building. Two nearly thirty-year-old 480-ton machines were removed and replaced with two modern 200-ton variable speed screw machines.

As of early 2024, the City of Chicago has vacated over 170,000 square feet of office space. This vacated space will remain empty for several years as DePaul completes a master planning exercise to determine its highest and best institutional use. When it comes time to remodel the subject floors, care will be taken to ensure that sustainability is at the forefront of design and engineering efforts.

Before concluding, I wanted to address an important point not directly captured in the Chicago Building Energy Use Benchmarking Ordinance data. DePaul decreased its Loop Campus footprint by approximately 160k square feet of rented office space in 2022 without building new structures to compensate for the loss of space. We accomplished this space reduction by shifting toward hybrid work and hoteling office arrangements. This trend will continue to develop and expand at the university to make more room for new academic programs and instructional spaces without requiring the construction of additional academic or administrative facilities. As we strive to make maximum use of existing buildings by finding new ways to leverage underutilized spaces, it is entirely possible that we could see upticks in emissions intensity on a per-square-foot basis.

In closing, again, I truly believe that DePaul shares your group's concerns about climate change and has taken concrete steps to mitigate its impact over time. I support President Manuel's commitment to create a Climate Action Plan and welcome the opportunity to work with members of the President's Committee on Sustainability and outside experts to determine a realistic path toward a decarbonized future for the university. I look forward to taking on this challenge and affecting meaningful change.

Respectfully,

Richard Wiltse
Vice President for Facility Operations
DePaul University